

Material Safety Data Sheet



Product name SELVOLTM (Celvol®) Polyvinyl alcohol, copolymer
MSDS number 80524
Revision Number 4

NA/EN
Revision Date Jul.03.2012
Issuing date Feb.08.2010

1. Product and company identification

Product name
SELVOLTM (Celvol®) Polyvinyl alcohol, copolymer

Sekisui Specialty Chemicals America, LLC
1501 LBJ Freeway, Suite 530 ***
Dallas, TX 75234

For information, telephone +1-972-277-2900
www.sekisui-sc.com

Transportation emergency phone numbers:
In USA, call 800 424 9300 (Chemtrec)
Outside USA, call 703 527 3887, collect calls accepted (Chemtrec)

End use:
Chemical intermediate (including monomers), Auxiliary for leather, Auxiliary for textil, packaging, Surfactant, Adhesives industry, Food industry

2. Hazards identification

Emergency Overview

CAUTION!
Dust from this product can form an explosive organic dust cloud.

Product Description

Appearance	
Form	Powder
Odor	odorless
Color	white

Potential health effects

Routes of exposure
Skin, eyes, inhalation, ingestion.

Immediate effects

Inhalation	May cause respiratory tract irritation. Symptoms of exposure may include: Nasal discharge, hoarseness, coughing, chest pain and breathing difficulty
Skin	Not expected to be a health hazard.
Eyes	Particulates may cause mechanical irritation. Symptoms of exposure may include eye irritation or burning sensation.

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Ingestion Not expected to be a health hazard.

Target organ effects

Overexposure (prolonged or repeated exposure) may cause:

Irritation of the respiratory tract

Local irritation at the site of exposure

Medical conditions which may be aggravated by exposure:

Significant exposure to this chemical may adversely affect people with acute or chronic disease of the:

Eyes

Gastrointestinal Tract

Respiratory Tract

3. Composition/information on ingredients

Components	CAS-No	Percent % of Components
Acetic acid ethenyl, ester, polymer with ethenol	25213-24-5	92-100

WHMIS Class: This product is not a WHMIS controlled substance

The following specific grades of SELVOL™ (Celvol®) are covered by this MSDS:

203 PV ALCOHOL; 203S PV ALCOHOL; 205 PV ALCOHOL; 205 S PV ALCOHOL; 418 PV ALCOHOL;
425 PV ALCOHOL; 430 PV ALCOHOL; 443 PV ALCOHOL; 502 PV ALCOHOL; 502S PV ALCOHOL;
504 PV ALCOHOL; 508 PV ALCOHOL; 513 PV ALCOHOL; 513S PV ALCOHOL; 518 PV ALCOHOL;
523 PV ALCOHOL; 523S PV ALCOHOL; 528 PV ALCOHOL; 530 PV ALCOHOL; 540 PV ALCOHOL;
540S PV ALCOHOL; 805 PV ALCOHOL; 818 PV ALCOHOL; 823 PV ALCOHOL; 830 PV ALCOHOL;
831 PV ALCOHOL; 840 PV ALCOHOL; 50-42N PV ALCOHOL; WS-53NF PV ALCOHOL; WS-724 PV ALCOHOL

Specific technical information on a SELVOL™ (Celvol®) grade should be obtained from the sales specification sheet available at www.sekisui-sc.com.

4. First aid measures

General Information

Wash contaminated clothing before re-use.

Inhalation

Move to fresh air in case of accidental inhalation of vapors. If victim has stopped breathing give artificial respiration, preferably, mouth to mouth. If symptoms persist, call a physician immediately.

Skin

Wash affected area with soap and water for at least 15 minutes. If irritation develops, call a physician immediately.

Eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Do not let victim rub eyes. Immediate medical attention is required.

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Ingestion

If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting without medical advice. Call a physician immediately.

5. Fire-fighting measures

NFPA:	Health: 1	Flammability: 1	Instability: 0
HMIS:	Health: 1	Flammability: 1	Instability: 0

Flash point OC: n/a

Minimum dust cloud ignition temperature: 280°C (536°F)

Suitable extinguishing media

Carbon dioxide (CO₂), dry chemical, alcohol-resistant foam, water spray

Extinguishing media which must not be used for safety reasons

Do not use a solid water stream as it may scatter and spread fire.

Special exposure hazards arising from the substance or preparation itself, its combustion products, or released gases

Risk of dust explosion

Under conditions giving incomplete combustion, hazardous gases produced may consist of carbon monoxide

carbon dioxide (CO₂)

Combustion gases of organic materials must in principle be graded as inhalation poisons

Special protective equipment for fire-fighters

Remove all individuals from area who are not properly trained in fire fighting. Material is not a flammable or combustible liquid. Material will not burn unless preheated. When in confined spaces, only enter fire space with full bunker gear (including self contained breathing apparatus) when fighting a fire involving this product. Cool surrounding equipment, fire-exposed containers and structures with water. Container areas exposed to direct flame contact should be cooled with large quantities of water (500 gallons water per minute flame impingement exposure) to prevent weakening of container structure. Keep away from extreme heat and open flame.

Other Information

6. Accidental release measures

Personal precautions

Avoid contact with the skin and the eyes. Do not breathe dust. Forms slippery surfaces with water.

Keep unnecessary people away; isolate hazard area and deny entry.

Environmental precautions

Remove all sources of ignition. Prevent further leakage or spillage. Ventilate area of leak or spill. Should not be released into the environment. Clean up spills in a manner that does not disperse dust into the air.

Methods for cleaning Up

Shovel or sweep up. Keep in suitable, closed containers for disposal. Dispose of in accordance with local regulations. Avoid dust formation.

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7. Handling and storage

Handling

Advice on safe handling

Ensure adequate ventilation. Keep containers tightly closed in a dry, cool and well-ventilated place. Avoid dust formation.

Protection - fire and explosion:

The powder can explode if mixed in air and ignited in a confined space. If unconfined, ignition will give rise to a Class A fire. Care should be taken to prevent the accumulation of dust. Dust is an explosion hazard. However, the explosive hazard is highly dependent on particle size; the finer the particles, the higher the explosion strength. Emptying of bags of powder directly into vessels where flammable vapors exist should be strictly prohibited because static discharges can be generated of sufficient strength to produce an explosion.

Storage

Technical measures/Storage conditions

Keep container tightly closed in a dry and well-ventilated place. The stacking height must not exceed three pallets.

Material storage

Keep away from reactive metals (sodium, zinc, copper, calcium, etc.). Store at room temperature in the original container.

Incompatible products

Keep away from:
oxidizing agents and strong acids

8. Exposure controls / personal protection

OSHA Exposure Limits

Components	TWA
Total Dust	15 mg/m ³
Respirable Dust	5 mg/m ³

ACGIH Exposure Limits

Components	TWA
Total Dust	10 mg/m ³
Respirable Dust	3 mg/m ³

Exposure controls

Engineering measures

General or dilution ventilation is frequently insufficient as the sole means of controlling employee exposure. Local ventilation is usually preferred.

Protective Equipment

A safety shower and eyebath should be readily available.

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General advice

Avoid contact with skin and eyes. Do not breathe dust. Use only in an area equipped with a safety shower. Hold eye wash fountain available.

Respiratory protection

Based on workplace contaminant level and working limits of the respirator, use a respirator approved by NIOSH. The following is the minimum recommended equipment for an occupational exposure level. To estimate an occupational exposure level see Section 8 and Section 11.

For concentrations > 1 and < 10 times the occupational exposure level: Use air-purifying respirator with full facepiece and organic vapor cartridge(s) or air-purifying full facepiece respirator with an organic vapor canister or a full facepiece powered air-purifying respirator fitted with organic vapor cartridge(s). The air purifying element must have an end of service life indicator, or a documented change out schedule must be established. Otherwise, use supplied air.

For concentrations more than 10 times the occupational exposure level and less than the lower of either 100 times the occupational exposure level or the IDLH: Use Type C full facepiece supplied-air respirator operated in positive-pressure or continuous-flow mode.

For concentrations > 100 times the occupational exposure level or greater than the IDLH level or unknown concentrations (such as in emergencies): Use self-contained breathing apparatus with full facepiece in positive-pressure mode or Type C positive-pressure full facepiece supplied-air respirator with an auxiliary positive-pressure self-contained breathing apparatus escape system.

For escape: Use self-contained breathing apparatus with full facepiece or any respirator specifically approved for escape.

Skin protection:

Wear impervious clothing and gloves to prevent prolonged or repeated skin contact. Neoprene is recommended. Other protective material may be used, depending on the situation, if adequate degradation and permeation data is available. If other chemicals are used in conjunction with this chemical, material selection should be based on protection for all chemicals present.

Eye/face protection:

Wear chemical goggles when there is a reasonable chance of eye contact. Do not wear contact lenses.

9. Physical and chemical properties

Appearance

Form	Powder
Colour	White
Odor	odorless
Melting point/range	230 - 240°C
Specific Gravity	0.61 – 0.67 @ 20°C (68°F)
pH, 4%	4.5 – 6.5
Water solubility	Soluble

10. Stability and reactivity

Stability

Stable at normal conditions

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Conditions to avoid

Avoid dust formation

Materials to avoid

Keep away from: oxidizing agents, peroxides, perchlorates, nitrates and reactive metals (sodium, zinc, copper, calcium, etc)

Hazardous Combustion or Decomposition Products:

Thermal decomposition products may include oxides of carbon

Hazardous reactions

Hazardous polymerization does not occur.

11. Toxicological information

Polyvinyl Alcohol

Oral	LD50: > 5000 mg/kg, rat
Inhalation	LC50: >20 mg/liter, rat, 1 hour
Skin irritation	Non-irritant
Species	rabbit
Skin sensitization	Nonsensitizer
Species	Guinea pig
Method	Maximization
Eye Irritation	Mild eye irritation
Species	rabbit eye
In vitro Mutagenicity	Ames test – negative with and without activation
	Mouse lymphoma cell gene-mutation – negative
In vivo Mutagenicity	Mouse micronucleus – negative
Reproductive toxicity	No toxicity to reproduction

Carcinogenicity:

NTP: No

IARC: 3

ACGIH: N/D

12. Ecological information

Polyvinyl Alcohol

Toxicity to fish	LC50: 10 mg/liter (96 hours)
Species	Lepomis macrochirus (Bluegill sunfish)
	LC50: 40 mg/liter (96 hours)
Species	Pimephales promelas (Fathead minnow)
Toxicity to daphnia	EC50: 8.3 mg/liter (48 hours)
Species	Daphnia magna
Toxicity to bacteria	EC50: 50 mg/liter (17 hours)
Method	DIN 38412 T.8
Biodegradation	90%
Method	OECD 302B (Zahn-Wellens Test)
Chemical Oxygen Demand (COD)	Ca. 17000 mgO ₂ /gram
Bioaccumulation	Bioaccumulation potential - low

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13. Disposal considerations

Disposal Considerations:

Dispose of spilled material in accordance with state and local regulations for waste that is non-hazardous by Federal definition. Note that this information applies to the material as manufactured; processing, use, or contamination may make this information inappropriate, inaccurate, or incomplete.

Note that this handling and disposal information may also apply to empty containers, liners and rinsate. State or local regulations or restrictions are complex and may differ from federal regulations. This information is intended as an aid to proper handling and disposal; the final responsibility for handling and disposal is with the owner of the waste.

14. Transport information

US Department of Transportation	Not regulated
TDG	Not regulated
ICAO/IATA	Not regulated
IMDG	Not regulated

15. Regulatory information

U.S. STATE REGULATIONS

Chemicals associated with the product which are subject to the state right-to-know regulations are listed along with the applicable state(s): none

California Proposition 65

This product contains no listed substances known to the State of California to cause cancer, birth defects, or other reproductive harm, at levels which would require a warning under the statute.

U.S. FEDERAL REGULATIONS

OSHA (Occupational Safety, and Health Administration)

29 CFR 1910.1200 Hazardous Chemical: No

Environmental Regulations: none

SARA 311

Acute health:	Yes
Chronic health:	No
Fire:	No
Sudden release of pressure:	No
Reactive:	No

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TSCA Inventory:

We certify that all components are on the TSCA inventory.

CANADA REGULATIONS

DSL (Domestic Substances List):

We certify that all components are on the DSL inventory.

EUROPEAN REGULATIONS

Europe

We certify that all components are on the European inventory

16. Other information

Prepared By

Product Stewardship Department
Sekisui Specialty Chemicals

For more information, other material safety data sheets or technical data sheets, please consult the Sekisui Specialty Chemicals home page at www.sekisui-sc.com

Sources of key data used to compile the datasheet

Information contained in this safety data sheet is based on Sekisui Specialty Chemical owned data and public sources deemed valid or acceptable. The absence of data elements required by ANSI or 2001/58/EC indicates, that no data meeting these requirements is available.

Changes against the previous version are marked by ***

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